

REMARKS

The Office Action of May 24, 2004 presents the examination of claims 1-9. The present paper cancels claims 4, 6, 8 and 9, without prejudice to or disclaimer of the subject matter thereof. New claims 10-13 are presented for examination.

Support For New Claims

New claims 10-12 find support in the specification at, for example, page 3, lines 11-29. New claim 13 finds support in, e.g. the original claims 1-9.

Rejection Under 35 U.S.C. § 112, Second Paragraph

Claim 1 is rejected under 35 U.S.C. § 112, second paragraph as being indefinite in repetition of the phrase, "the vertical plane VP1". This editorial error has been corrected, obviating this rejection.

Obviousness-Type Double Patenting

Claims 1-5 and 9 are rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-3 of Nishio, US 6,716,114. Claims 6 and 7 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3 of Nishio '114 in view of Cackett US 6,425,832. Claim 8 is rejected under the judicially created doctrine of obviousness-type double patenting as being

unpatentable over claims 1-3 of Nishio '114 in view of Iwata US 6,695,712.

Claims 4, 6 and 8-9 are canceled herein, rendering these rejections moot as to those claims. Applicants attach hereto a Terminal Disclaimer effective to overcome the instant rejections as they might apply to the remaining pending claims.

Rejections Over Other Prior Art

Claims 1-7 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Rugge US 5,851,160 in view of Cackett '832 and Oonuki US 5,348,777. Claims 4 and 6 are canceled, rendering the rejection moot as to those claims. The rejection is respectfully traversed as it might be applied to the remaining claims.

Applicants submit that the combination of cited references fails to disclose or suggest each feature of the claimed invention. Furthermore, at least as to the combination of Rugge '160 and Oonuki '777, the combination of references raises certain inconsistencies and therefore these two references cannot properly be combined to assert obviousness of the claimed invention.

Rugge '160 discloses a golf club head having a shaft axis I-I' and a center of gravity 2, wherein the distance between the shaft axis I-I' to a point 200 obtained by the orthogonal projection of the center of gravity on plane P2 is $\Delta 2$ which is

27-33 mm, as described at column 5, lines 9-31 and shown in Figures 1 and 2. $\Delta 2$ corresponds to the "gravity point distance" C in the instant claims. Rugge '160 discloses that the described golf club head may have a volume of "250 cc or greater" at the bottom of column 5, and describes various examples of golf club head volumes in the range of 235-285 cc in Table 1 at the bottom of column 7.

Rugge '160 fails to disclose any examples of golf club heads having a volume of 300 cc or greater as in the present invention. Applicants take due note that the Examiner characterizes the reference as disclosing club head volumes of from 250 to 285 cc. Furthermore, the range for $\Delta 2$ in Rugge '160 of 27-33 mm does not overlap with the range for the gravity point distance "C" satisfying the conditions (4) and (5) described at page 6 of the specification. Applicants note the recitation of condition (4) in the present claim 1 and the condition (5) in the original claim 5.

Cackett '832 is cited by the Examiner for the feature of the invention of a club head of 300 cc or greater and the various relationships described in eqns. 1-5 of the present claims and for a ratio of moment of inertia to head volume. Cackett '832 discloses a golf club head having a moment of inertia about a vertical axis of 3000 to 5000 g-cm², wherein the golf club heads have a volume of 300-600 cc as noted at the bottom of column 2. Cackett '832 does not disclose any

relationship of a distance between a shaft axis and the orthogonal projection of the center of gravity onto a plane containing the shaft axis as described in the instant claims.

The combination of Rugge '160 with Cackett '832 fails to establish *prima facie* obviousness of the invention because (1) the combination is improper in the first instance and (2) at least one feature of the invention is not disclosed or suggested in the combined references. As to (1), the combination of references requires that a club head size be both less than 300 cc and more than 300 cc at the same time. Such is plainly not possible and therefore the two references cannot be properly combined. As to (2), neither Rugge '160 nor Cackett '832 discloses or suggests the range of "C" in the present claims, and so at least that feature is missing from the combination of these two references.

Oonuki '777 is cited by the Examiner for disclosure therein that the length "C" in the instant claims may fall within the range of 20 to 50 mm. Oonuki '777 discloses a pipe-shaped structural member of fiber reinforced plastics which may be used to form a golf club shaft. The Examiner urges that Oonuki '777 discloses in Figure 66 that the center of gravity **A** of the club head 103 is separated by 20-50 mm from the geometric principal axis **G** of the club shaft 101.

Oonuki '777 describes Figure 66 as "prior art" (see, column 2, line 15 ("conventional") and column 8, lines 45-46 ("enlarged

view of Figure 65")) and points out disadvantages associated with using the illustrated golf club design (see, col. 8, lines 15-54). Thus, Oonuki '777 recommends that a design in which the distance from the center of gravity of the club head and the principal axis of the shaft should not be in the range of 20 to 50 mm. Thus, Oonuki '777 in fact "teaches away" from modifying the distance $\Delta 2$ of no more than 33 mm that is disclosed by Rugge to the minimum for "C" stated in the present claims.

Accordingly, even if Rugge '160, Cackett '832 and Oonuki '777 are improperly combined, the combination still fails to disclose or suggest the relationships of the conditions (1) and (4) recited in the instant claims. Thus, the combination of references fails to establish *prima facie* obviousness of the instant claims and the rejection of claims 1-3 under 35 U.S.C. § 103(a) over Rugge, Cackett and Oonuki should be withdrawn.

Claim 8 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rugge in view of Cackett and Oonuki and further in view of Iwata '712. Claim 9 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Rugge in view of Cackett and Oonuki and further in view of Stites '020. Claims 8 and 9 have been canceled, rendering these rejections moot.

Conclusion

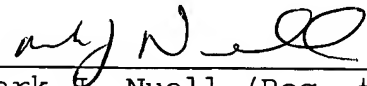
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mark J. Nuell (Reg. No. 36,623) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee of \$980.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s): Terminal Disclaimer and Transmittal